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July 30, 1999

Magalie Roman Salas FCC Secretary Office of the Secretary Federal Communications Commission The Portals, 445 Twelfth Street, S.W. Washington, D.C. 20554

RE: WT Docket 99-87, Revised Competitive Bidding Authority

Dear Ms. Salas:

Enclosed are comments and 4 copies submitted by the Lincoln Water System in response to the Federal Communication Commissions request for comments on WT Docket 99-87, Revised Competitive Bidding Authority.

City of Lincoln Water System appreciates the opportunity to offer the attached comments on this important rulemaking.

Best regards,

Don Wesely

Mayor of Lincoln

cc:

Senator Charles Hagel Senator Robert Kerrey Congressman Doug Bereuter

Attachments

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Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

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In the Matter of)	AUG 02 1999
Revised Competitive Bidding Author) ority)	FCC MAIL ROOM
)	WT Docket 99-87

To: The Commission

COMMENT

City of Lincoln Water System Don Wesely, Mayor of Lincoln 555 South 10th Street Lincoln, NE 68508

Dated: 7/30/99

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EXECUTIVE SUMMARY

In the Telecommunications Act of 1996 the Congress charged the Federal Communication Commission (FCC) with the requirement that radio frequency spectrum for communication, both voice and data, be assigned as a result of auctions. In this Act particular frequency spectrums were set aside for use by "public safety" organizations. In the Act, "public safety" was identified as police and fire protection services.

The Balanced Budget Act of 1997 directed the FCC to provide spectrum set-aside for a more broadly described "public safety services" including critical national infrastructure entities outside the auction process.

Lincoln Water System (LWS) supports the rulemaking petition submitted by the United Telecom Council (UTC), American Petroleum Institute, and Association of American Railroads proposing to create a third radio pool, in addition to the Public Safety and Industrial/Business Radio Pools already used for private radio frequencies below 470 MHz, to be known as the Public Service Radio Pool open to entities that do not qualify for Public Safety Radio Pool spectrum, but are eligible to use the public safety radio services that the Balanced Budget Act exempted from the Commission's auction authority. Lincoln Water System believes that this approach is feasible and appropriate for other frequency bands including PLMR frequencies above 470 MHz.

INTRODUCTION

The City of Lincoln Water System is a municipality owned system structure which provides drinking water to 66,500 customers representing more than 210,000 people. Our service area is geographically unique encompassing over 80 square miles with source of supply and treatment 40 miles from our farthest customer. Lincoln Water System relies on 928/952 MHz MAS Radio as an essential link of a Supervisory Control and Data Acquisition (SCADA) control system. The control system controls and monitors critical water system operations, flows and pressures. The SCADA system also controls critical infrastructure such as reservoirs (which provide fire protection to the city), pumps, valves, and pipeline flows.

Lincoln Water System uses two MAS channels in the 952/928 MHz band. These channels are the critical link between a remotely operated control center and 1) a water production well field and 2) a treated water distribution system. The data carried by these channels is used by a SCADA control system to control and monitor critical processes involving costly water system infrastructure such as transmission and distribution pipeline, reservoirs, and pump station equipment. Without reliable radio communication, hydraulic conditions within the water system are capable of inflicting damage to expensive equipment and infrastructure. This in turn leaves the public in a condition where fire fighting capability will be compromised or other secondary threats such as distribution main line cross contamination may occur in the event of an undetected line rupture.

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The City of Lincoln utilizes an 800 MHz trunked voice radio system to facilitate water supply operations to protect the health and safety of 210,000 citizens. The Lincoln Water System's 800 MHz voice network is shared with police, fire, health, public works, electric, wastewater, etc. This system provides intercommunication in case of emergencies.

The 800 MHz was an important emergency link between all city entities during and after the devastating snow storm in October, 1997 in which the city lost a majority of its electric power and power to critical infrastructure systems. Cell phones and the phone system were of little help with critical communications necessary to provide for emergency communications among all emergency responding entities.

COMMENTS

The Balanced Budget Act of 1997, Public Law No. 105-33, Title III, 111 Statute 251 (1997) ("Balanced Budget Act"). The Balanced Budget Act revised the Commission's auction authority for wireless telecommunications services. Lincoln Water System believes that the timely implementation of the Balanced Budget Act provisions regarding spectrum access for critical infrastructure entities is critical to meeting a need expressly recognized by the U.S. Congress.

Exemption from Auction

The Balanced Budget Act of 1997 and associated report language provide clear legislative direction to the FCC to insure that "public safety radio services" as defined in the Act and report language are exempt from auction. In determining that there was a specific need for access to spectrum outside of the auction process, Congress implicitly recognized the need for adequate availability of spectrum to activities deemed public safety radio services. And, that spectrum should be made available to these activities through a mechanism other than auctions.

Definition of Public Safety Radio Service

The definition for "public safety radio services" as stated by Congress is broader than the current "public safety radio services." The Act and associated report language specifically avoid the use of language that would limit the applicability of this section to the current definition of public safety i.e., police, fire, rescue applications.

The Balanced Budget Act of 1997 by reference and specific language describes "public safety radio services" as including private internal radio services, that were:

- 1. Used by state and local government.
- 2. Used by nongovernmental entities to protect safety of life, health or property, and not made commercially available to the public.

The Balanced Budget Act of 1997 was accompanied by report language that provides a clear descriptive summary of public safety radio services that meet the private internal radio services definition included in the Act:

"The exemption from competitive bidding authority for "public safety radio services" includes "private internal radio services" used by utilities (water, electric, wastewater), railroads, metropolitan transit systems, pipelines, private ambulances, and volunteer fire departments. Though private in nature, the services offered by these entities protect the safety of life, health, or property and are not made commercially available to the public."

Access to the exemption from competitive bidding authority for public safety radio service and associated spectrum allocations, is a function of the service provided "protection of safety of life, health, or property."

<u>Definition of Private Internal Radio Services</u>

Access to the exemption from competitive bidding authority for private internal radio services should be held against the same yardstick as described with the additional requirement that the radio service does not involve the commercial sale of the radio service itself. When applying this test of eligibility and the applicant will serve a group of users, all users must meet the eligibility tests of (1) used to protect safety of life, health or property and (2) radio service is not sold commercially.

Establishing a Public Safety Radio Service Pool

Lincoln Water System supports the formation of a public safety radio service pool to ensure that exempt spectrum is designated for the public safety needs identified in the Balanced Budget Act. Exemption from auction implies the formation of a core spectrum allocation to meet public safety radio service needs.

Critical Infrastructure Entities Need Spectrum

Drinking water utilities, including the Lincoln Water System should be eligible for auction exempt spectrum identified by the FCC as it implements the Balanced Budget Act provisions. Lincoln Water System and other drinking water utilities across the United States are finding it difficult to obtain suitable spectrum to meet critical system needs. The 928/952 MHz MAS radio links are vital to control and operate our water system from a central control room 30 miles from the city.

UTC has estimated that at least 6 MHz of spectrum (with the majority of that allocation being above 900 MHz) is needed to meet power, pipeline, railroad, and water utility spectrum needs for the near future. While the "public safety radio services" pool will not meet this total need, as eligible entities, the proposed pool would help address a portion of the spectrum needs identified by UTC for the critical infrastructure entities.

Spectrum Utility

The spectrum provided in the public safety pool should have utility for the eligible entities, like Lincoln Water System. For the public safety pool to assist Lincoln Water System and others with similar interoperability and private internal communication applications the "pool" should

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be developed from the following resources:

- 1. 928-952-956 Mhz MAS band, where current licensee is a member of the original Power Services Pool.
- 2. 932-941 Mhz MAS band, a minimum of 20 channel pairs
- 3. 6, 11, and 18 Ghz microwave bands, which are currently in use for private internal radio service.
- 4. 700 Mhz band for interoperability with emergency responders.

These bands are identified based on several general principles: (1) appropriateness for radio applications typical of critical national infrastructure entities which are eligible for this pool, (2) current installed equipment base and availability of equipment suitable for critical national infrastructure entity applications of this spectrum, and (3) historical use of this spectrum by critical national infrastructure entities. For example Lincoln Water System utilizes the 928/956 MHz MAS band and has identified a need for an additional MAS frequency in order to eliminate several unrealiable areas in the MAS network.

Lincoln Water System supports more detailed comments that were submitted by the American Waterworks Association (AWWA) on WT Docket 99-87.

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